

Claims

What is claimed is:

1 *Sub*
2 *61* 1. A method of communicating between programs having
3 comprising:

4 determining, at compile time, which savearea
5 layout of a plurality of savearea layouts is to be used
6 to save information relating to a calling program; and

7 selecting, at compile time, a linkage service from
8 a plurality of linkage services to be used in
9 communicating between said calling program and a callee
10 program, wherein said calling program and said callee
11 program have different machine context organizations.

1 *Sub*
2 *61* 2. The method of claim 1, wherein said determining is
3 based upon one or more attributes of said callee program.

1 3. The method of claim 2, wherein one attribute of
2 said one or more attributes comprises a size of one or more
3 registers to be used by said callee program.

1 4. The method of claim 2, wherein said determining is
2 further based on a target architecture mode.

1 5. The method of claim 1, wherein said selecting is
2 based upon the determined savearea layout.

11. A system of communicating between programs having different machine context organizations, said system comprising:

4 means for determining, at compile time, which
5 savearea layout of a plurality of savearea layouts is
6 to be used to save information relating to a calling
7 program; and

8 means for selecting, at compile time, a linkage
9 service from a plurality of linkage services to be used
10 in communicating between said calling program and a
11 callee program, wherein said calling program and said
12 callee program have different machine context
13 organizations.

~~12. The system of claim 11, wherein said means for determining comprises using one or more attributes of said callee program.~~

1 13. The system of claim 12, wherein one attribute of
2 said one or more attributes comprises a size of one or more
3 registers to be used by said callee program.

1 14. The system of claim 12, wherein the determining is
2 based on a target architecture mode.

1 15. The system of claim 11, wherein said means for
2 selecting comprises using the determined savearea layout in
3 making the determination.

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1 22. At least one program storage device readable by a
2 machine, tangibly embodying at least one program of
3 instructions executable by the machine to perform a method
4 of communicating between programs having different machine
5 context organizations, said method comprising:

6 determining, at compile time, which savearea
7 layout of a plurality of savearea layouts is to be used
8 to save information relating to a calling program; and

9 selecting, at compile time, a linkage service from
10 a plurality of linkage services to be used in
11 communicating between said calling program and a callee
12 program, wherein said calling program and said callee
13 program have different machine context organizations.

Sub C1
1 23. The at least one program storage device of claim
2 22, wherein said determining is based upon one or more
3 attributes of said callee program.

1 24. The at least one program storage device of claim
2 23, wherein one attribute of said one or more attributes
3 comprises a size of one or more registers to be used by said
4 callee program.

1 25. The at least one program storage device of claim
2 23, wherein said determining is further based on a target
3 architecture mode.

1 26. The at least one program storage device of claim
2 22, wherein said selecting is based upon the determined
3 savearea layout.

1 27. The at least one program storage device of claim
2 22, wherein said linkage service comprises at least one of a
3 calling service and a returning service.

1 28. The at least one program storage device of claim
2 22, wherein at least two savearea layouts of said plurality
3 of savearea layouts coexist within a single executable
4 module.

1 29. The at least one program storage device of claim
2 22, wherein said determining and said selecting enable use
3 of a source code that has at least one of the following: a
4 reduced amount of dual path source code, natural parameter
5 passing to/from a variety of caller types, and natural
6 exploitation of a large architecture, where desired.

1 30. The at least one program storage device of claim
2 29, wherein said source code comprises at least one common
3 name usable in referencing one or more analogous fields in
4 at least two savearea layouts of said plurality of savearea
5 layouts to reduce dual path source code.

1 31. The at least one program storage device of claim
2 22, wherein said different machine context organizations
3 comprise different register sizes.

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